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ABSTRACT

A study was made to determine whether there exists a group of overpersisting children who are considered mastery-oriented because of their persistence but who actually demonstrate characteristics of learned helplessness. Subjects were 71 females and 84 males from fourth-, fifth-, and sixth-grade classrooms. Children's scores on the Intellectual Achievement Responsibility Scale were used to sort subjects into mastery- and helplessness-oriented groups. Children were given four experimental tasks over a 1-month period. The first task was provided to obtain (1) the child's attributions for his or her failure and previous success, and (2) an expectancy statement for future success. A second task assessing persistence followed in order to identify those children who, in the face of difficulty, give up, persist, or overpersist. The third task allowed children to choose the level of difficulty for a given set of problems. As in the first task, children were requested to state their expectations for future success. The fourth and final task required children to make attributions for their success. Results indicated that an overpersisting group did exist; children in this group displayed characteristics very similar to learned helplessness. Overpersisting children were found to have low expectancies for future success and to explain their successes in terms of external factors. Additionally, maladaptive persisters used nonsense words on an anagram task. It was concluded that future research is needed to determine if maladaptive persisters should be taught how to properly allocate their time, if time limits should be established on all schoolwork, or if parental attitudes toward their children's abilities affect children's behavior to the point that home-based interventions are necessary. (RH)

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Learned Helplessness: An Analysis

of

Failure Avoidance Through

Maladaptive Persistence

by

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Past research has shown two distinct ways in which children react to difficult situations. Some children, whom researchers label mastery-oriented, persist in the face of difficulty and usually show improved performance, while other children, labeled learned helpless, show impaired performance, giving up in the face of difficulty. Mastery-oriented children persist because they believe they can obtain the correct solution by expending more effort. Helpless children give up because they perceive the outcome (i.e., the correct solution) as beyond their control. However, none of the research looks at those children who persist for unusually long periods of time.

In the present study, we hypothesized that the maladaptive persisters are helpless children who are trying to forestall the admission of perceived failure. Contrary to mastery-oriented children, who persist until they have exhausted all plausible strategies and move on to something else when they realize the solution is not within their reach, maladaptive persisters display characteristics very similar to helpless children. They have low expectancies for future success because underestimating their ability for future success gives them greater leeway to do better than expected, and hence avoid the possibility of negative evaluation. Our results also indicate that these children explain their successes in terms of external factors, instead of their ability. By attributing success to external factors, the children are not saying anything about their true ability and cannot be expected to

succeed in the future.

Additionally, we found that these maladaptive persisters used nonsense words on an anagram task to avoid turning in a blank page and thereby being judged to be "not smart." In contrast, the mastery-oriented children did not waste time in making up nonsense words.

Our results indicate that persistence in and of itself may not always be beneficial. This leads us to conclude that children must be taught how to properly allocate their time. Children should also be encouraged to request help from the teacher when necessary; it is important that children not be afraid to ask for assistance.

INTRODUCTION

In the past decade, the topic of learned helplessness and mastery-orientation has sparked interest in those researchers concerned with achievement motivation in educational settings. Briefly, helpless individuals believe that an outcome is independent of their response. In contrast, mastery-oriented individuals do not see outcome and response as independent of each other. They believe that they have some control over the situations they are in. How can these differing perceptions influence school achievement? In general, the effects of learned helplessness on school achievement are debilitating. Some examples are poor performance in certain subject areas, a decrease in motivation, and interference with new learning. On the other hand, the effects of mastery-orientation on achievement can be beneficial. Some examples are an increase in motivation and a willingness to accept challenging situations.

Throughout the helplessness research, it has been noted that people react to success and failure in a variety of ways (see Miller & Norman, 1979, for a review). Because of these different reactions, researchers (Diener & Dweck, 1978, 1980) have been able to classify children into the two groups: those considered learned helpless and those considered mastery-oriented. "Helpless children are characterized by cognitions that imply the inevitability or insurmountability of failure, whereas mastery-oriented children are characterized by cognitions that imply that their successes are replicable and their mistakes rectifiable" (Dweck & Licht, 1980). The factors that are evaluated in determining whether a child is helpless or mastery-oriented are: the amount of persistence in the face of failure, the attributions for success and failure, the expectations of success following

failure, and the child's reaction to subsequent failure situations. Before discussing the purpose of the present study, each of these factors will be presented in detail to explicate the different characteristics of learned helplessness and mastery-orientation.

Persistence

In their first experiment on learned helplessness in children, Dweck and Reppucci (1973) found that two different groups existed--one group of children gave up in the face of failure while the other group persisted at a difficult task. Other researchers have found similar results. High achievement-oriented individuals exhibit greater persistence in failure situations than do low achievement-oriented individuals; this persistence is greater following failure than success (Weiner, 1965, 1966; Weiner & Kukla, 1970). Diener and Dweck (1978) also found that helpless children, in a failure situation, tend to show minimal persistence (if any), decreased performance and an increase in the use of ineffectual strategies. On the other hand, mastery-oriented children showed an increase in persistence and performance and sometimes the use of more mature problem-solving strategies than they had prior to failure.

The helpless children, even though they were satisfied with the task before failure, wanted to withdraw from the situation after failure. They did so, cognitively, by making numerous task-irrelevant statements. In contrast, mastery-oriented children indicated greater task involvement and engaged in self-instruction. Butkowsky and Willows (1980) reported that good and average readers (i.e., mastery-oriented) persisted an average of 40% longer than poor readers (i.e., learned helpless). In sum, mastery-oriented behavior has been defined as increased persistence or improved

performance, whereas learned helpless behavior is associated with decreased persistence or impaired performance (Dweck & Goetz, 1978; Dweck, Goetz & Strauss, 1980).

Attributions

For failure. Findings on achievement-related attributions seem to be very consistent with each other. Weiner and Kukla (1970) found that subjects low in achievement motivation (i.e., learned helpless) were more likely to attribute failure to lack of ability than the high achievement motive group (i.e., mastery-oriented) and the high achievement motive group attributed failure to personal motivation more frequently than the low achievement-oriented group. Persisters are significantly more likely to attribute failure to lack of effort than are helpless children (Dweck & Goetz, 1978; Dweck & Reppucci, 1973; Dweck & Wortman, 1980). Similarly, Weiner, Frieze, Kukla, Reed, Rest and Rosenbaum (1971) noted that non-persisters ascribed failure to a lack of ability and persisters attributed failure to a lack of effort.

In the Diener and Dweck (1978) task, children were asked why they thought they had trouble with the test problems; 52% of the helpless individuals attributed failure to their lack of ability, whereas none of the mastery-oriented individuals made ability attributions. Comparing effort attributions, 23.7% of the mastery-oriented children attributed failure to lack of effort, whereas only 3.4% of the children in the helpless group made such attributions. In short, attributions for failure to invariant factors, such as lack of ability, are associated with learned helplessness and attributions for failure to more readily modifiable factors, such as lack of

effort, characterize mastery-orientation (Dweck & Goetz, 1978).

For success. While helpless children are willing to make ability attributions for their failure, they are not inclined to do the same for their successes. Helpless children do not see their successes as indicative of their ability (Dweck, 1975), but instead attribute success to some external factor (e.g., good luck). In the Diener and Dweck (1980) study, children were given eight discrimination problems on which they succeeded, then asked to apportion their attributions to show the relative importance of each of the possible causes for their success. The choices were as follows: "I was lucky," "It was easy," "I am good at this," or "I am smart;" an effort attribution was not included because the task required effort in order to succeed. Also, the investigators were only interested in detecting any differential emphasis on ability in identifying the causes of success. At this point, no significant differences in attributions for success were found between helpless and mastery-oriented individuals.

Next, subjects were given four problems on which they failed (i.e., they received consistent "wrong" feedback) and then were asked why they thought they did well on the earlier problems. Here is where the significant differences appeared. The mastery-oriented individuals made the same attributions of ability after the success and failure trials. However, helpless individuals, once they encountered failure, changed their attributions for previous success from ability attributions to some external attribution. Overall, the helpless children discounted their successes as indicative of ability, whereas mastery-oriented children stressed their ability as an important determinant of their success.

Other researchers have obtained similar results. Nicholls (1975) showed that girls attributed failure to poor ability more than they attributed success to good ability. He also found that boys made fewer luck attributions after success than after failure. Boys made more ability attributions for success and girls made more luck attributions for success. This is consistent with Weiner and Kukla's (1970) findings:

"Those children high in achievement motivation took personal responsibility for their success, attributing it to ability, whereas children low in achievement motivation did not take personal responsibility and instead attributed their success to external factors." (p. 1)

Summary. To summarize, the literature shows that helpless children are consistently attributing their failure to lack of ability and mastery-oriented children are consistently attributing their failure to lack of effort. As for success, helpless children make attributions to external factors, whereas mastery-oriented children make ability attributions. The reason for these differences lies in the definition of learned helplessness, the attribution theory, and in the child's attitude towards the situation.

Expectancy of Success

Most of the literature is consistent with respect to conclusions for differences in expectancies of success for mastery-oriented and learned helpless groups. Weiner, Nierenberg and Goldstein (1976) suggested that expectancy changes following success and failure are due to the perceived stability of the causal attributions of performance. If one attributes past outcomes to a variable factor (e.g., luck), then these outcomes will

not affect one's expectancies in the future, but if one attributes past outcomes to a stable factor (e.g., ability), then one's expectancies for future performance will shift in the direction of the outcome.

Butkowsky and Willows (1980) obtained similar results and stated that attribution to stable factors increases the subjective probability of success and decreases the expectancy of success following failure more than attributions to unstable factors (see also Weiner et al., 1971). They found poor readers had lower initial expectancies of success and produced greater decrements in their estimates of success following failure than did average or good readers. Likewise, Tennen and Eller (1977) found that subjects who attribute failure to inability will lower their subjective probability of success.

In their recent study, Diener and Dweck (1980) discovered that the mastery-oriented children expected to get more problems correct after failure than did the helpless children. The helpless children also showed a trend toward lowered expectancy of future success; this decrease, together with their previously low expectancy, suggests that although success is not perceived to be predictive of future performance, failure certainly is. It was also noted that "helpless children view failure as more 'diagnostic' of their level of ability, whereas mastery-oriented children view success as more diagnostic."

Based on this evidence, it has been concluded that mastery-oriented children do have higher expectancies of success following failure than do helpless children. However, it should be noted that one study (Dweck & Reppucci, 1973) found no reliable differences among the two groups either in

initial or final expectancies, or in shifts in expectancy following success and failure.

Reaction to Failure

There seems to be agreement among researchers that learned helpless children select different tasks compared to the tasks mastery-oriented children select. Children with a stronger motive to avoid failure than to achieve success (i.e., helpless) will avoid achievement-related tasks and instead choose activities that will not arouse anxiety about failure. In contrast, children with a stronger motive to achieve success (i.e., mastery-oriented) will show some positive interest in performing achievement-related tasks (Feather, 1969). For helpless children, failure has a negative self-evaluative meaning, but for mastery-oriented children, failure has task relevant information value--failure signals them to vary their strategy in order to obtain the correct solution (Dweck & Wortman, 1980). Weiner et al. (1971) maintain that children high in achievement motivation will select tasks of intermediate difficulty because they yield the most self-evaluative feedback. In comparison, children low in achievement motivation will select tasks that are either very easy or extremely difficult since such tasks provide a minimum amount of self-evaluative feedback (see Trope, 1975). Combining these viewpoints, helpless children will avoid tasks which are intermediate in difficulty because they do not want the negative feedback, whereas mastery-oriented children will attempt moderately difficult tasks because they see the feedback as helpful in obtaining the correct solution.

In conclusion, when failure occurs, helpless children spend little time

searching for ways to overcome failure and instead seek an escape from the situation. On the other hand, mastery-oriented children seem to be directed towards the attainment of a solution and actively pursue solution-relevant strategies (Diener & Dweck, 1978; Dweck & Licht, 1980).

Summary of Characteristics

In short, learned helpless children are characterized by decreased persistence in the face of difficulty, attributions for failure to lack of ability, attributions for success to some external factor (e.g., luck), low expectancy of future success, and avoidance of moderately difficult tasks which may evaluate their true level of ability. In contrast, mastery-oriented children are characterized by increased persistence in the face of difficulty, attributions for failure to lack of effort, attributions for success to their true ability, high expectancy of future success, and their willingness to attempt challenging tasks. Most of the research supports these conclusions.

Is it possible that there exists a group of overpersisters who are considered mastery-oriented because of their persistence, but actually demonstrate all other behaviors characteristic of learned helpless children? The purpose of the present study is to find out if this group does exist, in which case they would be suffering from what may be termed the "Nixon Syndrome"--unusually prolonged persistence designed to forestall the admission of failure. If so, they would attribute failure to the external environment in order to cover up their lack of ability and display other behaviors characteristic of learned helplessness.

METHOD

Overview

Insert Table 1 About Here

Children were given four separate experimental tasks over a one-month period (see Table 1). The first task was given in order to get the child's attributions for his/her failure and previous success and an expectancy statement for future success. A persistence task followed for the purpose of determining those children who, in the face of difficulty, give up, persist, or overpersist. The third task allowed children to choose the level of difficulty for a given set of problems. As in the first task, an expectancy statement for future success was asked for at the end of the third task. The final task required children to make attributions for their success.

Subjects

Subjects were 74 females and 88 males, taken from fourth-, fifth- and sixth-grade classrooms in two Champaign-Urbana schools. The results from four males and three females were excluded from the analysis either because the subject knew what puzzles were being used in the second task or because the subject failed to complete the experiment. This left a total of 71 females and 84 males.

Measure of Helplessness

Since past research (Diener & Dweck, 1980, 1978; Dweck, 1975; Dweck & Reppucci, 1973; Floor & Rosen, 1975) has indicated that a major difference between helpless and mastery-oriented children lies in their respective

tendency to neglect or emphasize the role of effort in determining their failures. This relative emphasis was used as one of the criteria for dividing children into helpless and mastery-oriented groups. The Intellectual Achievement Responsibility (IAR) Scale (Crandall, Katkovsky & Crandall, 1965) was used for this purpose. The IAR consists of 34 forced-choice items that describe either a positive or negative achievement experience that frequently occurs in the daily lives of our children. For each item, the child must choose either an external attribution (something in the child's environment) or an internal attribution (having to do with the child's own behavior). Ten of the items on the IAR specifically tap the child's attributions for failure to lack of effort.

Those children scoring 5 or below were considered helpless, and those scoring 8 and above were designated as mastery-oriented. Those children scoring a 6 or 7 were looked at separately. The IAR was given to all participating classrooms one week prior to the first experimental session.

Task 1

Materials and procedure. The first task was an angle-matching task similar to the one used by Nicholls (1975). Children were given a 15-page booklet containing 15 acute angles. Each angle had 4-inch sides. Children matched each angle with one of eight different "standard" angles placed on a posterboard 6-8 feet away from the children. Length between children and standards board varied because of the different schools' limitation on space. None of the angles in the booklet matched up with a standard angle. The angles used for failure trials were equidistant in size between some two of the standards with the difference between these standards being slight

and barely discriminable. The task was made ambiguous in order to control the feedback without arousing suspicion about the authenticity of the feedback. To check whether children did become suspicious, an obtuse angle, clearly different from those in the booklet, was included among the standards. Only one subject (whose data was not used) "tested" the procedure by choosing this angle; all others accepted the feedback as genuine.

Children were told that this was a task to see how well children their age could match up figures. They were instructed to tell the experimenter the letter underneath the standard angle which matched the one in the booklet. Each child received the same patterned feedback, regardless of his/her responses. In the first four problems children were told they had gotten the problems correct. Failure feedback was given for the next five problems, followed by positive feedback for the remaining six problems.

Upon completion of the five failure problems, children were asked to give attributions for their failure using an attribution wheel. The wheel was made of four discs of light-weight cardboard, each a different color. They were cut along a radius and slipped together in such a way that they could be moved to expose 360 degrees of any color or different amounts of any combination of colors. A hole was cut in the center of the discs in order to slip the discs over the peg on the wooden board. One metal tab was glued to each disc so they could be easily moved. Next to each of the cut radii was printed one of the four causal attributions. On the failure wheel, the following alternatives were printed: "I am not smart at this," "I did not try hard," "It was too hard," and "I had bad luck."

The experimenters showed the children how to use the wheel by counterbalancing a number of examples. Children were told they could give one reason why they did not do very well or they could give a combination of reasons. They were further instructed that if they gave a combination they should give the more important reasons a large part of the wheel and the less important reasons a smaller part of the wheel. After making sure the directions were understood, the experimenters handed the children the wheel, with each segment equally exposed, and asked why the children thought they did poorly on the last few problems.

After they completed their answer, children were told to recall that before they got the last few problems wrong, they did get the first four correct. Now they were asked why they thought they had done well on the first problems. This time a success wheel with the following responses was used: "I am smart at this," "I tried hard," "It was easy," and "I was lucky." Children were instructed to use this wheel in the same way they had used the previous one. When they finished, the experimenters returned to the remainder of the task.

Positive feedback was given for the remaining six problems in order for the child to feel as though he/she had been successful on the task. After the last problem, the experimenters asked, "If I were to give you another test like this tomorrow, using 15 new figures, how many do you think you would be able to get right?" Sixteen 3"x5" index cards, numbered from 0-15, were laid out in front of the child and the child was asked to pick up, and hand to the experimenter, the card with the number that he/she thought would get right. The session concluded by telling the children they

had done very well on the task.

Task 2

Materials and procedure. The purpose of the second task was to determine the amount of persistence a child has in trying to solve a difficult problem. Does the child spend too little time, an adequate amount of time, or too much time on one difficult problem? The instructions given to each child were as follows:

I have two puzzles that I want you to work on today. Since we don't have a lot of time, I can only give you 20 minutes to work on the two puzzles. I'm not going to show you what the second puzzle is until after you stop working on the first one. You can work on the first one for as much time as you want, up to 20 minutes, or for as little time as you want. You don't have to finish the first puzzle in order to go on to the second one. Whenever you want to stop working on the first one, tell me and then I'll give you the second one. Any questions?

The measure of persistence was the amount of time the child spent working on the first puzzle. The child's performance on the second puzzle was disregarded. It was important that the identity of the second puzzle be unknown to every child. Knowing what the second puzzle was could have prompted the child to quit working on the first one only because he/she wanted to work on the second one, not because he/she did not want to try to solve it anymore.

Each child worked on the same first puzzle. It was called a "Lifesavers" puzzle because it resembled a roll of Lifesavers candy. It consisted of 12 plastic interlocking pieces that could fit together only one way. It should

be noted that no one was able to solve this puzzle. The second puzzle was either "Rubik's Cube," "Drive ya nuts," or "Boxed in."

While the children were trying to solve the puzzles, the experimenters wrote down the children's verbalizations.

At the conclusion of the 20 minutes the experimenters told each child: These were really hard puzzles, so I don't want you to feel bad that you weren't able to solve them. I can't even do them. The reason I had you work on these was that I thought you would have fun trying to solve them because I know most children and adults have fun with these kinds of puzzles.

It was also stressed to the children that they should not tell any of their classmates what puzzles they had worked on.

Task 3

Materials and procedure. The third task was designed to give children the chance to choose the level of difficulty, on a given set of problems, that they would want to work on. In the first part of the task, children worked on three pages of anagrams. They had eight minutes to work on each page. The first page had 20 three-lettered anagrams; the second page had 20 five-lettered anagrams; and the third page had 20 eight-lettered anagrams. Before beginning, the children were told that some of the words might be harder to figure out than others, but that they should try as many as they could. After that, nothing else was said about the difficulty of the problems.

After completing all three pages, children were given the following instructions:

Now we're going to do something a little different. I have 20 sets of cards here. There are three cards in each set, and each card has one mixed up word on it. Since we're running out of time, I want you to work on only one word in each set. It doesn't matter which word you choose to work on. As I give you the set of words, quickly pull out the one word you want to work on and put it on the side--then give me the rest of the words. Then I'll give you the next set and you'll do the same with those words, and so on, until we go through all 20 sets. After that, I'll give you time to work on the words you chose.

Each set of words contained a three-, five-, and eight-lettered anagram. Seventy-five percent of the words were new and the other 25 percent were words from the previous three pages. After the children finished selecting the words, the experimenters told them that there was not enough time to work on all the words, so they would do them at the next meeting. Then the experimenters asked the children how many words (out of 20) they thought they would get right. After the children left the room, the experimenters records the number of three-, five-, and eight-lettered words each child had chosen.

Task 4

Materials and procedure. The final task was made easy so each child could be successful at the task. Children were given $1\frac{1}{2}$ minutes to work on each of 10 word search puzzles. Each puzzle contained three hidden words (which were also listed underneath the puzzle) which could be found going in one of three directions: horizontal from left to right, vertical from

top to bottom, and diagonal from top left to bottom right. After they finished, children were asked why they thought they had done so well. The success attribution wheel used in the first task was used again here.

At the conclusion of this session, the children were thanked for participating in the study and were told they had done very well on all the tasks.

RESULTS

Correlations

Several significant correlations ($N=155$, $p .025$) were found between the dependent variables. There was a .185 correlation between the I-(E) subscore on the IAR, which tells how many effort attributions children make in failure situations, and the children's failure attributions to lack of effort on the angle-matching task. This demonstrates the fact that the angle-matching task was tapping appropriate attributions and the children's current task-related attributions were consistent with more general academic achievement attributions tapped by the IAR. Time on the persistence task was positively correlated with failure attributions to lack of effort ($r=.195$) and negatively correlated with failure attributions to lack of ability ($r=-.180$). These correlations replicate the findings from previous research that those who persist attribute failure to lack of effort and those who do not persist attribute failure to lack of ability (Dweck & Reppucci, 1973). The correlation between failure attributions to lack of ability and success attributions to luck ($r=.256$) is also in accordance with previous research (Diener & Dweck, 1980). Those children attributing failure to lack of ability will also attribute success to external factors (i.e., luck).

Other Differences Replicated

Two other significant differences are worth mentioning at this point. There was a significant difference for failure attributions to task difficulty, with mastery-oriented children making fewer such attributions than did helpless children, $F(2,149) = 3.67$, $p .05$. Mastery-oriented children also made fewer success attributions to luck than did helpless children, $t(69) = 2.11$, $p .05$. These findings substantiate those from previous research (Dweck & Reppucci, 1973).

Sex and Racial Differences

In terms of the two independent variables, sex and race, no significant sex differences were found; however, there were some significant racial differences. Minorities made significantly fewer success attributions to ability on the IAR than did non-minorities ($p .025$). Additionally, they made more success attributions to luck on the word search puzzles than did non-minorities ($p .025$). Minorities also chose fewer three-lettered anagrams ($p .025$). This finding may be due to the fact that they attribute their success to luck. Since neither effort nor ability are seen as being responsible for success, they might as well choose harder words and if they are lucky enough, they will get them correct.

The Nixon Syndrome

Four dependent measures were used to determine a Nixon Syndrome profile: (a) high persistence, defined as being in the top third on the persistence scale; (b) low expectancy for future success, determined by the sum of two independent expectancy statements; (c) avoidance of moderately difficult problems based on the number of three-lettered (i.e., easy) and eight-lettered

(i.e., extremely difficult) words chosen; and (d) success attributions to external factors, defined as the sum of luck and task difficulty attributions. Subjects had to show high persistence plus two out of the other three criteria in order to be classified as a Nixon.

The four different variable means for the Nixon and non-Nixon groups are presented in Table 2. From these results, it was evident that a group of children, labeled Nixons, does exist.

Insert Table 2 About Here

After it was determined that the Nixon group exists, it was necessary to look at other dependent variables to ascertain how the Nixons differentiate from the helpless and mastery-oriented children. The two variables used were the usage of nonsense words on the anagram task and the verbalizations made during the persistence and anagram tasks.

Nonsense word usage was defined as writing down at least 10 out of 20 nonsense words on any one page of anagrams. It was found that 10 of the Nixon children and nine of the helpless children exhibited nonsense word usage, while only two of the mastery-oriented children used nonsense words (see Fig. 1). A chi-squared analysis was performed on these data which showed a significant difference between the three groups, $\chi^2(2) = 6.97$, $p .05$. A chi-squared analysis was then performed to see which groups differed significantly from one another. The results showed significant differences between the mastery-oriented and helpless groups, $\chi^2(1) = 5.61$, $p .02$, and between the Nixon and mastery-oriented groups, $\chi^2(1) = 6.54$, $p .02$. There was no significant difference between the Nixon and helpless groups.

Insert Figure 1 About Here

Verbalizations attributing failure to lack of ability were defined according to the categorization system used by Diener and Dweck in 1978. All verbalizations made during the persistence and anagram tasks were recorded by the experimenter and were later coded into the different categories by an independent rater. In accordance with the hypothesis, none of the Nixons made ability attributions for failure. The helpless group made the most ability attributions which is in agreement with Diener and Dweck's (1978) previous findings (see Fig. 2). A chi-squared analysis yielded a significant difference between the three groups, $\chi^2(2) = 11.23$, $p .02$. Further analysis showed significant differences between the Nixon and mastery-oriented groups, $\chi^2(1) = 5.18$, $p .05$ and the Nixon and helpless groups, $\chi^2(1) = 10.81$, $p .01$. No significant difference was found between the mastery-oriented and helpless groups.

Insert Figure 2 About Here

An analysis of variance yielded other significant differences between Nixonx and non-Nixons in terms of failure attributions obtained from the angle-matching task. Table 3 shows that Nixons made more effort and task difficulty attributions than did non-Nixons. However, as predicted, Nixons made fewer ability attributions than did non-Nixons. It is interesting to note here that the Nixon children who scored a 6 or a 7 on the I-(E) scale of the IAR are the ones who made the fewest number of ability attributions ($M=.067$) and the greatest number of task difficulty attributions ($M=14.7$).

Insert Table 3 About Here

DISCUSSION

As stated previously, the results show that there does exist a group

of overpersisters suffering from the Nixon Syndrome. According to the Nixon profile, these children display characteristics very similar to helpless children: low expectancies, avoidance of moderately difficult tasks, and success attributions to external factors. Clearly these children are unlike mastery-oriented children except for their unusual persistence. Why is the Nixon persistence viewed as maladaptive while the mastery-oriented persistence is seen as beneficial for problem-solving strategies, even if they persist for the same length of time?

Previous research (Diener & Dweck, 1978) has shown that mastery-oriented children employ more effective strategies in the face of difficulty in order to achieve the correct solution. It is not until they have exhausted all plausible strategies that they would perceive themselves as having failed. Therefore, their persistence is adaptive to the situation. If they believe obtaining the solution is within their ability they will persist; however, when they realize the solution is not within their reach they will stop and move on to something else. For example, when they saw that failure on the first puzzle was inevitable, they decided they could use their time more wisely on the second puzzle.

In contrast, the Nixon children (over)persisted on the first puzzle in order to forestall the admission of failure. This conclusion can be made for the following reasons: (a) the puzzle was chosen for this task because of its extreme difficulty--the children knew, based on their verbalizations, that it would be almost impossible to solve. For example, they said things like: "I ain't never going to get this," "I don't think you can do this," or "This is strange, I don't know how to do this." Yet

(b) they persisted almost twice as long as the mastery-oriented group ($\bar{M}$ = 867 sec. and $\bar{M}$ = 481 sec., respectively), and (c) during the task, they were the only group who did not make any ability attributions for failure.

Another example of this fear to admit failure was demonstrated in the anagram task. The results show the persistent use of ineffectual strategies displayed by Nixon children. These children were afraid to turn in a blank sheet of paper for it would have looked as though they completely lacked the ability to do--or even try--the problems. In both the persistence and anagram tasks, Nixon children display maladaptive persistence because it led to unproductive problem-solving strategies.

The next question is why do these Nixon children have low expectancies? One might also ask why these children avoid moderately difficult tasks. The answer to these two questions is similar. The Nixon children, at all costs, want to avoid failure. Underestimating their ability for future success gives them greater leeway to do better than expected, and hence avoid the possibility of failure. Also, by choosing extremely easy problems, Nixon children have a greater chance to succeed than if they chose moderately difficult problems. Moderately difficult problems tend to reflect a person's true ability (McClelland, 1961; Weiner et al., 1971). However, extremely difficult problems are not reflective of one's true ability because very few people are capable of solving them. Therefore, Nixon children might choose extremely difficult problems too, because even if they do not succeed, it would not be reflective of their true ability.

The results also indicate that Nixon children attribute their successes to external factors instead of to their ability. But one might think they

should attribute success to ability in order to truly cover up their lack of ability. However, if these children were to attribute success to their ability, people would expect them to succeed in the future. This would increase their chances of failure, because in their own minds, they know they do not have the ability to perform successfully. By attributing success to external factors, the children are not saying anything about their true ability.

Based on the results presented it can be concluded that a group of Nixon children exists, but are they a subgroup of helpless children, or are they a distinct group that fits somewhere along the continuum between helplessness and mastery-orientation? From the evidence introduced here, it seems more likely that they are a subgroup of helpless children, rather than a separate group. They have a profile similar to helpless children and both groups tended to use nonsense words on the anagram task. However, the current research also found differences between Nixon children and helpless children on verbalizations. Further research, comparing Nixon and helpless children on other variables, is needed before definite conclusions can be drawn.

Given that maladaptive persistence has been found in children, several implications for schooling can be made. It should be noted that most, if not all, teachers believe all persistence is beneficial to achievement. Remarked one teacher, "Jane Doe spent 20 minutes on the task--that's fantastic!" This demonstrates the need to make teachers aware of maladaptive persistence and the children who display it. A teacher who reinforces persistence may be causing more children to suffer from the Nixon Syndrome. For example, if a child does not know the answer to a problem

he/she might work futilely in order to at least get praised for "working hard."

It would be interesting to observe a classroom to see how Nixon children behave in the class. By determining how they perform in class, certain guidelines could be established which would allow teachers to easily distinguish which children are Nixons. Are the Nixons the children who never raise their hands to answer questions because they are afraid to give incorrect answers? Are they the children who sit at their desks and never go up to the teacher for help? Do they like to work alone instead of in groups, for fear that the other children might witness their lack of ability? Are they the children who leave their schoolwork for homework so their parents (and not the teacher) can help them? Answers to these questions can be important determinants of the Nixon Syndrome.

Once teachers have learned how to identify Nixon children, they must be able to deal with the problem. Would it be beneficial to put a time limit on all schoolwork? Or should children just be taught how to allocate their time more effectively? Is it possible that parental attitudes towards their children's abilities influence the children's behavior in which case intervention should begin at home? Future research is needed to develop proper intervention programs.

Future studies on the Nixon Syndrome might profit from some changes in methodology. First, a new persistence task relating more to an academic area could be used. Some children might have perceived the puzzle as irrelevant to their learning, whereby they would give up quickly; or they might have thought it was fun to work on and hence would play with

it until time ran out. Also, the task should have a clearly defined appropriate time to stop, and it could be designed so the experimenter could tell whether the children were using effective or ineffective strategies.

Second, children could be asked to verbalize during each task, with the verbalizations being recorded systematically. In the present study, experimenters were just told to write down whatever the children said and the verbalizations were coded afterwards. A problem that occurred was that some verbalizations were not written down. Also, by asking children to verbalize, there would be a significantly greater number of verbalizations to code which would improve the analysis.

In conclusion, it was determined that persistence may not be a beneficial characteristic of high achievement. A group of maladaptive persisters was found to exhibit behaviors characteristic of helpless children. However, it was not determined if these persisters are a subgroup of helpless children or if they are a distinct group fitting somewhere between the helpless and mastery-oriented groups. Possible questions for future research were discussed, along with ways to improve the present study. It should be emphasized that further research is needed, now that we know this special group of children exists.

REFERENCES

- Butkowsky, I. S. & Willows, D. M. Cognitive-motivational characteristics of children varying in reading ability: Evidence for learned helplessness in poor readers. Journal of Educational Psychology, 1980, 72, 408-422.
- Crandall, V. J. Sex differences in expectancy of intellectual and academic reinforcement. In C. P. Smith (Ed.), Achievement-related motives in children. New York: Russell Sage Foundation, 1969.
- Crandall, V. C., Katkovsky, W., & Crandall, V. J. Children's beliefs in their own control of reinforcements in intellectual-academic situations. Child Development, 1965, 36, 91-109.
- Crandall, V. J., & Rabson, A. Children's repetition choices in an intellectual achievement situation following success and failure. Journal of Genetic Psychology, 1960, 97, 161-168.
- Diener, C. I., & Dweck, C. S. An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. Journal of Personality and Social Psychology, 1978, 36, 451-462.

- Diener, C. I., & Dweck, C. S. An analysis of learned helplessness: I. The processing of success. Journal of Personality and Social Psychology, 1980, 39, 940-952.
- Dweck, C. S. The role of expectations and attributions in the alleviation of learned helplessness. Journal of Personality and Social Psychology, 1975, 31, 674-685.
- Dweck, C. S., & Bush, E. S. Sex differences in learned helplessness: I. Differential debilitation with peer and adult evaluators. Developmental Psychology, 1976, 12, 147-156.
- Dweck, C. S., Davidson, W., Nelson, S., & Enna, B. Sex differences in learned helplessness: II. The contingencies of evaluative feedback in the classroom; and III. An experimental analysis. Developmental Psychology, 1978, 14, 268-276.
- Dweck, C. S., & Gilliard, D. Expectancy statements as determinants of reactions to failure: Sex differences in persistence and expectancy change. Journal of Personality and Social Psychology, 1975, 32, 1077-1084.
- Dweck, C. S., & Goetz, T. E. Attributions and learned helplessness. In J. Harvey, W. Ickes, & R. F. Kidd (Eds.), New directions in attribution research, Vol. 2. Hillsdale, N.J.: Erlbaum, 1978.

- Dweck, C. S., Goetz, T. E., & Strauss, N. Sex differences in learned helplessness: IV. An experimental and naturalistic study of failure generalization and its mediators. Developmental Psychology, 1980, 38, 441-452.
- Dweck, C. S., & Licht, B. G. Learned helplessness and intellectual achievement. In E. P. Seligman & J. Garber (Eds.), Human helplessness: Theory and application. New York: Academic Press, 1980.
- Dweck, C. S., & Reppucci, N. D. Learned helplessness and reinforcement responsibility in children. Journal of Personality and Social Psychology, 1973, 25, 109-116.
- Dweck, C. S., & Wortman, C. B. Cognitions and coping strategies. In Learned Helplessness, 1980.
- Feather, N. T. Attribution of responsibility and valence of success and failure in relation to initial confidence and task performance. Journal of Personality and Social Psychology, 1969, 13, 129-144.
- Floor, L., & Rosen, M. Investigating the phenomenon of helplessness in mentally retarded adults. American Journal of Mental Deficiency, 1975, 79, 565-572.
- McClelland, David C. The Achieving Society. New York: Van Nostrand, 1961.
- Miller, I. W., III, & Norman, W. H. Learned helplessness in humans: A review and attribution-theory model. Psychological Bulletin, 1979, 86, 93-118.

- Nicholls, J. G. Causal attributions and other achievement related cognitions: Effects of task outcomes, attainment value and sex. Journal of Personality and Social Psychology, 1975, 31, 379-389.
- Tennen, H., & Eller, S. J. Attributional components of learned helplessness and facilitation. Journal of Personality and Social Psychology, 1977, 35, 265-271.
- Trope, Y. Seeking information about one's own ability as a determinant of choice among tasks. Journal of Personality and Social Psychology, 1975, 32, 1004-1013.
- Weiner, B. The effects of unsatisfied achievement motivation on persistence and subsequent performance. Journal of Personality, 1965, 33, 428-442.
- Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., & Rosenbaum, R. Perceiving the causes of success and failure. Morristown, N.J.: General Learning Press, 1971.
- Weiner, B., & Kukla, A. An attributional analysis of achievement motivation. Journal of Personality and Social Psychology, 1970, 15, 1-20.
- Weiner, B., Nierenberg, R., & Goldstein, M. Social learning (locus of control) versus attributional (causal stability) interpretations of expectancy of success. Journal of Personality, 1976, 44, 52-68.

Table 2
Means for Nixon Profile Measures Compared with
Means for Non-Nixons

Group	Time (sec.)	Expectancy	Word Choice			External Success Attributions
			3	5	8	
Nixon	866.6	20.5	12.2	4.2	3.6	17.8
Non-Nixons	458.4	25.8	11.3	7.0	1.7	11.0

Table 3
Significant Differences in Failure Attributions
Between Nixons and Non-Nixons

Attributions	Means		<u>F</u>	<u>p</u>
	Nixon	Non-Nixons		
Lack of effort	17.3	11.3	5.09	.025
Lack of ability	3.1	8.8	6.69	.01
Task difficulty	9.1	5.3	3.99	.025

Figure Captions

Figure 1. Percent of nonsense words used by Nixon, helpless, and mastery-oriented children.

Figure 2. Percent of verbalizations attributing failure to lack of ability.



